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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,412	07/01/1999	GREGORY A. JAMIESON	H16-25990	2387

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EXAMINER

TRAN, MYLINH T

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

204

**Office Action Summary**

Application No.

09/346,412

Applicant(s)

GREGORY JAMIESON

Examiner

Mylinh T Tran

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 02/26/02.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 9-26, 28, 29 and 33-48 is/are rejected.
- 7) ☒ Claim(s) 4, 7, 8, 27 and 30-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 02/28/02 is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

Applicant's request for reconsideration filed on 02/26/02 has been carefully considered. However, arguments regarding rejections under 35.U.S.C 103 to claims 1-3, 5, 6, 9-26, 28, 29 and 33-48 have not been found to be persuasive. Therefore, these claims are rejected under the same ground of rejection as set forth in the Office Action mailed (11/08/01).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6, 9-26, 28, 29, 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. [US. 4,675,147] in view of van Weele et al. [US. 5,631,825].

As to claims 1 and 24, Schaefer et al. discloses a scale extending along a gauge axis (figure 1, column 9, lines 39-53), a graphical shape displayed along the gauge axis representative of a current value of the process variable (column 3, lines 50-67) and one or more bars extending along the gauge axis (figure 1, (18), (26) represent for bars). The differences between the claim and Schaefer et al. is one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable. van Weele et al. shows the setting limits and changing values and defining the high and low limit of the process variables in figure 33, column 16, lines 1-10. It would have been

obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and van Weele et al. before him at the time the invention was made to modify the gauge axis and the graphical shape as taught by Schaefer et al. to include representative of a set of high and low process limit values for a process variable of van Weele et al. in order to provide data input means for selecting one of a set of preselected process primitives , and means for indicating a value for the selected process primitive and substituting the input value for that primitive as the valued to be monitored and controlled by the PCC, as taught by van Weele et al. As to claims 2 and 25, Schaefer et al. shows one or more bars extending along the gauge axis include a first bar extending along the gauge axis wherein a first end of the first bar is representative of an engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable (figure 1, column 11, lines 38-64).

As to claims 3 and 26, Schaefer et al. teaches the one or more bars extending along the gauge axis include a first bar extending along the gauge axis (figure 1, (18), column 11, lines 38-64), second bar (figure 1, (26)). The difference between Schaefer et al. and the claim is an operator set high limit for the process variable and an operator set low limit for the process variable. However, van Weele et al. shows the operator set high and low limit values on figure 33, 338, column 31, lines 1-13. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and van Weele et al. before him at the time the invention was made to modify the first and second bars as taught by Schaefer et

al. to include representative of a set of operator high and low process limit values for a process variable of van Weele et al. in order to provide data input means for selecting one of a set of preselected process primitives, and means for indicating a value for the selected process primitive and substituting the input value for that primitive as the valued to be monitored and controlled by the PCC, as taught by van Weele et al.

As to claims 5 and 28, Schaefer et al. also demonstrates the one or more bars extending along the gauge axis include: a first bar extending along the gauge axis (Figure 1, (18), (26), column 11, lines 38-64), Schaefer et al. teaches a first end of the first bar is representative of an engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable and Van Weele et al. show the operator set high limit for the process variables and a second end of the second bar is representative of an operator set low limit for the process variable on figure 33, (336, 338), column 31, lines 1-15.

As to claims 6 and 29, van Weele et al. teaches the second bar extending along the gauge axis representative of operator set high and low limits for the process variable on column 31, lines 1-15. However, Schaefer teaches more detail about the engineering hard high and low limits for the process variable on figure 1, (18), (26).

As to claim 9, Schaefer et al. also discloses the graphical user interface further includes user manipulation elements movable to change one or more of the high and low process limit values (column 9, lines 39-53).

As to claim 10, Schaefer et al. shows the scale extending along the gauge axis is automatically adjustable as a function of the movement of the user manipulation elements (column 3, lines 17-49).

As to claims 11, 12, 35, 36 and 37, Schaefer et al. also shows the user manipulation elements include one or more manipulation pointer flags associated with operator set limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such operator set limits and the user manipulation elements include one or more manipulation pointer flags associated with the engineering hard limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such engineering hard limits (column 3, lines 50-65). Van Weele et al. shows the pointer flags clearly on figure 33, (332), (334).

As to claims 13, 34, 38 and 40, Schaefer et al. demonstrates the graphical shape representative of the current value of the process variable is a pointing device to the scale proximate (column 13, lines 46-67 and column 14, lines 1-35).

As to claim 14, Schaefer et al. teaches graphical user interface further includes at least one additional graphical shape displayed along the gauge axis representative of at least one additional value for the process variable (figure 5, column 16, lines 25-50)

As to claims 15, 17 and 39, Schaefer et al. also teaches the additional graphical shape representative of at least one additional value for the process variable has a color of a, set of colors that reflects the state of the current value for the

process variable relative to the set of high and low process limit values (column 15, lines 20-32).

As to claim 16, Schaefer et al. shows the scale extending along the gauge axis is adjustable as a function of a current value of the process variable relative to the one or more process limits values (figure 6, column 13, lines 47-65).

As to claim 18, Schaefer et al. also shows a color for the graphical shape represents one of a current value of the corresponding process variable being within the set of high and low process limit values, the current value of the corresponding process variable being within a certain percentage of a limit value of the set of high and low process limit values, and the current value of the corresponding process variable being outside of the set of high and low process limit values (column 15, lines 20-32).

As to claim 19, Schaefer et al. discloses a background of a region adjacent the one or more bars along the gauge axis is of a color when the graphical shape representative of the current value of the process variable is outside of the high and low process limit values, and further wherein the region is representative of engineering physical limits of the process variable (column 9, lines 39-66). It is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety. Therefore, it is easy to understand that the graphical shape representative of the current value of the process variable is outside of the high and low process limit values.

As to claim 20, van Weele et al. discloses the graphical user interface further includes a trend graph for the process variable (column 6, lines 30-35).

As to claim 21, van Weele et al. also discloses the trend graph includes at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable values (column 14, lines 10-65).

As to claim 22, van Weele et al. teaches the trend graph includes at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable limits (figures 20-21, column 36, lines 35-52).

As to claim 23, van Weele et al. also teaches the one or more process variables include a plurality of manipulated variables and a plurality of controlled variables of a continuous multivariable process (column 35, lines 31-61).

As to claim 33, Schaefer et al. also demonstrates displaying user manipulation elements movable to change one or more of the high and low process limit values, moving such user manipulation elements to generate data representative of changed high or low process limit values; and providing such data to a controller of the process (column 3, lines 50-65 and column 13, lines 46-67 and column 14, lines 1-35). Van Weele teaches the user manipulation elements more clearly on figure 33, (336), (338).

As to claim 41, Schaefer et al. shows rescaling the scale extending along the gauge axis as a function of the current value of the process variable relative to the set of high and low process limit values (column 8, lines 60-68 and column 9, lines 1-7).

As to claim 42, Schaefer et al. also shows displaying the graphical shape representative of the current value of the process variable includes: determining



a state of the current value of the process value relative to the set of high and low process limit values and displaying the graphical shape in a color of a set of colors that reflects the state of the current value for the process variable (column 17, lines 4-49).

As to claim 43, Schaefer et al. teaches determining the state of the current value of the process value relative to the set of high and low process limit values includes determining whether the current value of the process variable is within the set of high and low process limit values (column 11, lines 11-37), and determining whether the current value of the process variable is within a certain percentage of a limit value of the set of high and low process limit values, and determining whether the current value of the process variable is a certain percentage outside of the set of high and low process limit values (column 9, lines 30-38).

As to claim 44, Schaefer et al. also teaches determining whether the current value of the process variable is outside of the set of high and low process limit values and displaying a graphical element representative of engineering physical limits of the process variable when the current value of the process variable is outside the set of high and low process limit values (figure 1, 16, column 8, lines 36-59). It is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety.

As to claim 45, van Weele et al. demonstrates displaying a graphical element representative of engineering physical limits of the process variable includes displaying a background region adjacent the one or more bars along the gauge

axis in a particular color representative of engineering physical limits (column 6, lines 30-65). Schaefer et al. teaches color more clearly on column 9, lines 39-53. As to claim 46, van Weele et al. also demonstrates displaying a trend graph for the process variable with the displayed scale, gone or more bars, and the graphical shape representative of the current value of the process variable (column 14, lines 11-26).

As to claim 47, van Weele et al. discloses displaying the trend graph includes displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable values (column 14, lines 27-67).

As to claim 48, van Weele et al. also discloses displaying the trend graph includes displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable limits (figures 20-21, column 14, lines 1-50).

#### ***Allowable Subject Matter***

Claims 4, 7, 8, 27 and 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims would be allowable because the prior arts fails to teach or suggest a delta soft high region within the first bar adjacent the first end thereof and a delta soft low region within the first bar and adjacent the second end thereof, and the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits.

### ***Response to Arguments***

Regarding to claims 1, 3, 5, 24, 26 and 28, Applicant has argued that Schaefer et al. and/or van Weele et al. don't teach "one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable. The Examiner does not agree because Schaefer et al. teaches in figure 1, one bar (26) represents for the low limit value and other bar (18) represents for the high limit value.

Regarding to claims 6 and 29, Applicant has argued that van Weele et al. does not teach "the high and low limit of the process variables". The Examiner does not agree because Van Weele et al. show this feature in figure 33, (336, 338).

Regarding to claims 11, 12, 35, 36 and 37, Applicant has argued that the prior art does not teach the one or more manipulation pointer flags. The Examiner does not agree because Van Weele et al. shows the feature on figure 33, (332, 334).

Regarding to claims 14 and 39, Applicant has argued that Schaefer et al. doesn't teach a graphical user interface includes an additional graphical shape displayed along the gauge axis that is representative of at least one additional value for the process variable. The Examiner does not agree because Schaefer et al. shows the feature on figure 5.

Regarding to claim 19, Applicant has argued that Schaefer et al. does not teach the graphical shape representative of the current value of the process variable is outside of the high and low process limit values. The Examiner does not agree because it is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety. Therefore, it is easy

to understand that the graphical shape representative of the current value of the process variable is outside of the high and low process limit values.

Regarding to claims 22, Applicant has argued that van Weele fail to teach a trend information representative of process variable limits be displayed as either a historical trend graph or a prediction trend graph. The Examiner does not agree because Van Weele et al shows the feature on figures 20-21 and column 36, lines 35-52.

Regarding to claims 33, Applicant has argued that Schaefer et al. fail to teach displaying user manipulation elements movable to change one or more high and low process limit values or moving such user manipulation elements to generate data representative of changed high or low process limit values. The Examiner does not agree because Schaefer et al shows the feature on column 3, lines 50-65 and column 13, lines 46-67 and column 14, lines 1-35). Van Weele teaches the user manipulation elements more clearly on figure 33, (336), (338).

Regarding to claims 44, Applicant has argued that Schaefer et al. does not show the current value of the process variable is outside of the set of high and low process limit values and displaying a graphical element representative of engineering physical limits of the process variable when the current graphical shape is positioned outside of the parallel lines when the value for the corresponding process variable is outside the high and low process limit values by a predetermined percentage. The Examiner does not agree because Schaefer et al is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety.

Regarding to claim 45, Applicant has argued that van Weele et al. fails to teach a background region adjacent the one or more bars along the gauge axis is displayed in a particular color that is representative of the engineering physical limits. The Examiner does not agree because Van Weele et al. shows the feature on column 6, lines 30-65, and Schaefer et al. teaches color more clearly on column 9, lines 39-53.

Regarding to claims 48, Applicant has argued that van Weele et al. fails to teach a trend graph that include displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable limits. The Examiner does not agree because Van Weele et al. shows the feature on figures 20-21, column 14, lines 1-50.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### ***Conclusion***

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires fax a response, (703) 746-7238, may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-7240 for Non-Official or draft communications. NOTE, A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for information facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday-Thursday from 8.00AM to 6.30PM

If attempt to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Kristine Kincaid, can be reached on (703) 308-0640,

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver

of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Mylinh Tran

Art Unit 2174

  
**CRESCELLE N. DELA TORRE**  
**PRIMARY EXAMINER**